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June 25, 1998

Federal Communications Commission  
Office of Secretary

Magalie Roman Salas  
Secretary  
Federal Communications Commission  
1919 M Street, NW  
Washington, DC 20554

*In Re: WT Docket No. 96-86 - The Development of Operational, Technical, and Spectrum Requirements For Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010 Establishment of Rules and Requirements For Priority Access Service*

Dear Ms. Salas:

On Wednesday, June 24, 1998, the undersigned met with B.C. "Jay" Jackson, Jr. of the FCC's Wireless Telecommunications Bureau to discuss technical issues associated with the above-referenced proceeding. Please associate this letter with the files of WT Docket No. 96-86.

The purpose of the meeting was to clarify Motorola's technical analysis concerning bandwidth requirements for the proposed wideband data channels, and the limits which should be imposed on the aggregation of these wideband data channels.

As discussed in that meeting, Motorola's original Comments in this proceeding proposed that the Commission

"Adopt channel building block increments of 6.25 kHz within the integrated voice data segment and 100 kHz building blocks within the wide band segment. Routinely allow aggregation of blocks on a frequency coordinated basis as needs dictate in order to accommodate multiple technologies and multiple users' needs."

A contribution from the National Public Safety Telecommunications Council (NPSTC) proposed 150 kHz channels for use within the wideband segment. Subsequent discussions between Motorola and NPSTC led to a proposal of 125 kHz channels for this segment. Members of the Wireless Telecommunications Bureau have asked us to review this proposal and to offer any additional technical justification for the 125 kHz proposal. We were also asked to address the question of whether there should be an upper limit on the number of channels which can be aggregated.

Further analysis of these issues has led us to the following conclusions.

1. Motorola believes that 150 kHz is a more appropriate channel bandwidth for the wideband data channels than is 125 kHz. We have discussed this with NPSTC representatives, and both parties are in agreement. In its Comments to this proceeding, Motorola proposed that, for the wideband data channels

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"The coupled power into this first channel is required to be less than -40dBc. However, in order to gain this spectrum use efficiency, systems on these adjacent channels will require geographic planning (coordination) to provide sufficient geographical spacing to ensure non-interference between systems. Beyond the adjacent channel, a lower value of coupled power is required. This lower value of coupled power, in conjunction with mobile station power control, minimizes the need for geographic planning beyond the adjacent channel."

In addition, Motorola feels that there is a strong desire in both the public safety and manufacturer communities to leverage commercial off-the-shelf technologies to the greatest extent possible to provide rapidly low-cost advanced services to the public safety users. Our recommendation of 150 kHz bandwidths satisfies three needs: (1) it provides adequate adjacent channel protection for public safety system deployments, (2) it provides this protection while making efficient use of the spectrum, and (3) it is consistent with the desire to make maximum use of commercially developed technologies.

2. Aggregation of up to two (2) channels of 150 kHz each should be allowed routinely. Aggregation of more than two channels will be permitted under further FCC review. This recommendation also provides a balance between two opposing forces. The first is a desire to allow technical flexibility in the development of systems which can supply the wideband services required. The second is the need to manage the spectrum wisely so that it provides the most use to the most people. Because we believe that use of commercial technology will play a large role in this band, we base our recommendation on the observation that a 300 kHz channel (two channels of 150 kHz each) should be adequate for deploying all current and planned technologies which are appropriate for public safety wireless systems.

We hope that this information is helpful to the Commission's deliberations. Please contact me at (202) 371-6940 if any further clarification is necessary.

Sincerely,

Leigh M. Chinitz, Ph.D

Manager, Telecommunications Strategy and Spectrum  
Motorola, Inc.

Cc: John Clark  
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